

IN THE CLAIMS:

Original claims 1-29 were amended during Chapter II proceedings by substituting new claims 1-29 in a letter dated February 4, 2001. Please ~~cancel~~[✓] original claims 1-29 and cancel amended claims 1-29 and rewrite them as new claims 30-61 as follows:

30. A method for conveying resistance to beet necrotic yellow vein virus (BNYVV) to a sugar beet plant, comprising the following steps:

Ad (a) preparing a DNA fragment of at least 15 nucleotides in a sequence that is at least 70% homologous to the corresponding nucleotide sequence of the genomic RNA 1 of the beet necrotic yellow vein virus (BNYVV);

(b) introducing said DNA fragment, operatively linked to a promoter that is active in sugar beet plants, into a sugar beet plant cell to obtain a transformed sugar beet cell; and

(c) regenerating a transgenic sugar beet plant from the transformed sugar beet plant cell.

31. The method as claimed in claim 30, wherein the DNA fragment is at least 80% homologous to the corresponding nucleotide sequence of the genomic RNA 1 of said virus.

32. The method according to claim 30, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 30 to nucleotides 153 to 3258 of RNA 1 of said virus.

33. The method according to claim 30, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 30 to nucleotides 169 to 539 of RNA 1 of said virus.

34. The method according to claim 30, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 30 to nucleotides 1226 to 1683 of RNA 1 of said virus.

35. The method according to claim 30, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 30 to nucleotides 2754 to 3192 of RNA 1 of said virus.

36. The method according to claim 30, wherein the fragment consists of 6746 nucleotides.

37. The method as claimed in claim 30, wherein the fragment is introduced into the cell by means of a DNA vector harboring the fragment and transcription and translation regulatory sequences operably linked therewith.

38. A transformation vector for conveying resistance to BNYVV to a plant, harboring a fragment of at least 15 nucleotides in a sequence that is at least 70% homologous to the corresponding nucleotide sequence of the genomic RNA 1 of said virus, and transcription and translation regulatory sequences operably linked therewith.

39. The vector as claimed in claim 38, wherein the fragment is at least 80% homologous to the corresponding nucleotide sequence of the genomic RNA 1 of said virus.

40. The vector according to claim 38, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 38 to nucleotides 153 to 3258 of RNA 1 of said virus.

41. The vector according to claim 38, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 38 to nucleotides 169 to 539 of RNA 1 of said virus.

42. The vector according to claim 38, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 38 to nucleotides 1226 to 1683 of RNA 1 of said virus.

43. The vector according to claim 38, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 38 to nucleotides 2754 to 3192 of RNA 1 of said virus.

44. The vector according to claim 38, wherein the fragment consists of 6746 nucleotides.

45. A plant cell, exhibiting a resistance to BNYVV, comprising in its genome a DNA fragment of at least 15 nucleotides in a sequence which is at least 70% homologous to the corresponding nucleotide sequence of the genomic RNA 1 of said virus.

46. The plant cell as claimed in claim 45, wherein the fragment is at least 80% homologous to the corresponding nucleotide sequence of the genomic RNA 1 of said virus.

47. The plant cell according to claim 45, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 45 to nucleotides 153 to 3258 of RNA 1 of said virus.

48. The plant cell according to claim 45, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 45 to nucleotides 169 to 539 of RNA 1 of said virus.

49. The plant cell according to claim 45, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 45 to nucleotides 1226 to 1683 of RNA 1 of said virus.

50. The plant cell according to claim 45, wherein the fragment has a nucleic acid sequence that corresponds with the homology indicated in claim 45 to nucleotides 2754 to 3192 of RNA 1 of said virus.

51. The plant cell according to claim 45, wherein the fragment consists of 6746 nucleotides.

52. The plant cell as claimed in claim 45 being part of a sugar beet plant that is resistant against BNYVV.

53. A method for the production of a sugar beet plant that is resistant against BNYVV comprising regeneration from a plant cell as claimed in claim 45.

54. A sugar beet plant, exhibiting a resistance to BNYVV, consisting at least partly of plant cells as claimed in claim 45.

55. A progeny of sugar beet plant as claimed in claim 54.

56. Seeds of a sugar beet plant as claimed in claim 54.

57. Vegetatively reproducible structures from a plant according to claim 54.